

What is claimed is:

1 1. An automatic air-blown cleaning apparatus for
2 cleaning a liquid crystal display (LCD) component in an
3 LCD assembly process, comprising:

4 an assembly station for receiving and assembling the
5 liquid crystal display component;

6 a conveying device for delivering the liquid crystal
7 display component to the next assembly station;
8 and

9 an air filtering blower provided on the conveying
10 device, the air filtering blower sending an air
11 flow toward the liquid crystal display
12 component to remove residual matter from the
13 liquid crystal display component.

1 2. The automatic air-blown cleaning apparatus
2 according to claim 1, wherein the air filtering blower
3 comprises:

4 a filter;

5 a high efficiency colander at a side of the filter;

6 a blowing device at an opposite side of the high
7 efficiency colander and the filter;

8 an outlet provided at an outgoing end of the air
9 filtering blower for sending the air flow
10 toward the liquid crystal display component;
11 and

12 an inlet provided at an incoming end of the air
13 filtering blower for receiving and circulating
14 the air flow to the filter;

15 wherein the air flow is blown along a circulation
16 path formed by the inlet, the filter, the high
17 efficiency colander, the blowing device and the
18 outlet.

1 3. The automatic air-blown cleaning apparatus
2 according to claim 2, wherein the air flow is blown in
3 the conveyed direction of the conveying device.

1 4. The automatic air-blown cleaning apparatus
2 according to claim 2, wherein the outlet comprises a
3 nozzle.

1 5. The automatic air-blown cleaning apparatus
2 according to claim 1, wherein the liquid crystal display
3 component comprises a liquid crystal panel.

1 6. The automatic air-blown cleaning apparatus
2 according to claim 1, wherein the liquid crystal display
3 component comprises a backlight membrane.

1 7. A method of cleaning a liquid crystal display
2 (LCD) component for LCD assembly, comprising the steps
3 of:

4 providing the liquid crystal display component for
5 assembly;

6 disposing the liquid crystal display component on a
7 conveying device having an air filtering blower
8 thereon;

9 sending the liquid crystal display component through
10 the air filtering blower to clean residual
11 matter from the liquid crystal display

12 component with an air flow blown by the air
13 filtering blower; and
14 sending the liquid crystal display component toward
15 the next assembly station to perform assembly.

1 8. The method of cleaning a liquid crystal display
2 component for LCD assembly according to claim 7, wherein
3 the air flow is blown in the conveyed direction of the
4 conveying device.

1 9. The method of cleaning a liquid crystal display
2 component for LCD assembly according to claim 7, wherein
3 the liquid crystal display component comprises a liquid
4 crystal panel.

1 10. The method of cleaning a liquid crystal display
2 component for LCD assembly according to claim 7, wherein
3 the liquid crystal display component comprises a
4 backlight membrane.